

Recorded water levels in this bulletin are derived from a representative network of water level gages on each lake (see cover [map](#)). Providers of these data are the National Ocean Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and the Marine Environmental Data Service, Department of Fisheries and Oceans, Canada. The Detroit District, Corps of Engineers and Environment Canada derive historic and projected lake levels under the auspices of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

This bulletin is produced monthly as a public service. Tables of possible storm-induced rises at key locations on the Great Lakes are available on request. The Corps also publishes the "Great Lakes, Connecting Channels and St. Lawrence River Water Levels and Depths," twice monthly, which provides a forecast of depths in the connecting rivers between the Great Lakes and the International Section of the St. Lawrence River. These publications can be obtained free of charge by writing to the address shown on the front cover, or by calling (313) 226-6441. Notices of change of address should include the name of the publication(s). The Internet address <http://www.lre.usace.army.mil/glhh> also contains this information.

Great Lakes Basin Hydrology December 2009

Precipitation in December was below average in the Lake Superior and Lake Michigan-Huron basins and above average in the Lake Erie and Lake Ontario basins. Annual precipitation in 2009 was below average in the Lake Superior basin. Precipitation in 2009 was slightly above average in the Lake Michigan-Huron basin, above average in the Lake Erie basin and near average in the Lake Ontario basin. Outflows from Lake Superior and Lake Michigan-Huron were below average in December. Lake Ontario and Lake Erie each had above average outflows. The tables below list December precipitation, water supply, and outflow information for the entire Great Lakes basin.

Comparison of December monthly mean water levels to long-term (1918-2008) average shows Lakes Superior, Michigan-Huron, and St. Clair 4, 5 and 2 inches below average, respectively. Lakes Erie was an inch above average, while Lake Ontario was 2 inches below average.

PRECIPITATION (INCHES)								
BASIN	December				12-Month Comparison			
	2009	Average (1900-2006)	Diff.	% of Average	Average Last 12 months	Average (1900-2006)	Diff.	% of Average
Superior	1.46	2.01	-0.55	73	23.67	30.45	-6.78	78
Michigan-Huron	2.12	2.31	-0.19	92	33.20	32.30	0.90	103
Erie	2.89	2.63	0.26	110	37.50	35.28	2.22	106
Ontario	3.30	2.92	0.38	113	34.94	35.65	-0.71	98
Great Lakes	2.15	2.34	-0.19	92	32.17	32.53	-0.36	99

Lake	December WATER SUPPLIES ¹ (cfs)		December OUTFLOW ² (cfs)	
	2009	Average ⁴ (1900-1999)	2009	Average ³ (1900-1999)
Superior	14,000	-23,000	64,000	73,000
Michigan-Huron	-10,000	30,000	177,000	184,000
Erie	7,000	17,000	204,000	199,000
Ontario	48,000	27,000	252,000	234,000

Notes: Values (excluding averages) are based on preliminary computations. CFS denotes cubic feet per second.

¹ Negative water supply denotes evaporation from lake exceeded runoff from local basin.

² Does not include diversions.

³ Niagara and St Lawrence rivers average outflows are based on period of record 1900-1989 and 1900-2005, respectively

⁴ Lakes Erie and Ontario average water supplies based on 1900-1989